

AMENDMENTS TO THE CLAIMS

1-21. (Canceled)

22. (Currently amended) A surface and cordless transducer system, the system comprising:

a surface including a position resolving grid, and

a transducer including a power receiving circuit, wherein the power receiving circuit responds to an electromagnetic field radiating from the surface and sends a transmit signal, which is received by the position resolving grid and used to determine a position of the transducer relative to the surface,

wherein the surface further includes a power transmission at least one transmitting coil, which is distinct from the position resolving grid, for radiating [[an]] the electromagnetic field to a transducer to power the transduer, the at least one transmitting power transmission coil having being a resonant frequency power transmission coil and consisting of a plurality of overlapping coils.

~~position resolving grid, the position resolving grid distinct from the at least one transmitting coil, the position resolving grid configured to receive a position signal from the transducer to determine the position of the transducer;~~

~~and wherein the transduer comprises:~~

~~a resonant circuit, the resonant circuit configured to receive the electromagnetic field from the at least one transmitting coil and store energy from the received electromagnetic field.~~

23-50. (Canceled)

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51. (New) The surface and cordless transducer system of Claim 22, wherein the resonant power transmission coil comprises a transmission coil of the resonant inductive type.

52. (New) The surface and cordless transducer system of Claim 22, wherein the position resolving grid and the resonant power transmission coil, consisting of a plurality of overlapping coils, are arranged on top of one another to form the surface.

53. (New) The surface and cordless transducer system of Claim 22, wherein the transducer includes an energy storage portion that is configured to generate and store DC operating power for operating the transducer based on a signal from the power receiving circuit in response to the electromagnetic field radiating from the power transmission coil arranged on the surface.

54. (New) The surface and cordless transducer system of Claim 22, wherein the resonant power transmission coil, when inactive, is configured to be tuned to a frequency that is different from its operating frequency so as to minimize an electromagnetic interference between the resonant power transmission coil and the position resolving grid.

55. (New) The surface and cordless transducer system of Claim 22, wherein the resonant power transmission coil is configured to be squelched when the surface is receiving a transmit signal from the transducer.

56. (New) The surface and cordless transducer system of Claim 22, wherein the transducer is configured to perform a predefined modulation on a transmit signal to be sent to the position resolving grid.

57. (New) The surface and cordless transducer system of Claim 56, wherein the predefine modulation comprises a time keying modulation or an on/off modulation.

58. (New) The surface and cordless transducer system of Claim 22, wherein the transducer includes a low current source that is configured to provide a constant transmit signal level.

59. (New) A method for determining a position of a transducer relative to a surface, wherein the surface includes a position resolving grid and the transducer includes a power receiving circuit, the method comprising:

causing the power receiving circuit to respond to an electromagnetic field radiating from the surface and to send a transmit signal, and

causing the position resolving grid to receive the transmit signal from the transducer to thereby determine a position of the transducer relative to the surface,

wherein the surface further includes a power transmission coil, which is distinct from the position resolving grid, the power transmission coil being a resonant power transmission coil and consisting of a plurality of overlapping coils, and the method further comprises:

causing the power transmission coil to radiate the electromagnetic field.

60. (New) The method of Claim 59, wherein the resonant power transmission coil comprises a transmission coil of the resonant inductive type.

61. (New) The method of Claim 59, wherein the position resolving grid and the resonant power transmission coil, consisting of a plurality of overlapping coils, are arranged on top of one another to form the surface.

62. (New) The method of Claim 59, wherein the transducer includes an energy storage portion, and the method further comprises causing the energy storage portion to generate and store DC operating power for operating the transducer based on a signal from the power receiving circuit in response to the electromagnetic field radiating from the power transmission coil.

63. (New) The method of Claim 59, further comprising tuning the resonant power transmission coil, when inactive, to a frequency that is different from its operating frequency so as to minimize an electromagnetic interference between the resonant power transmission coil and the position revolving grid.

64. (New) The method of Claim 59, further comprising squelching the resonant power transmission coil when the surface is receiving a transmit signal from the transducer.

65. (New) The method of Claim 59, further comprising causing the transducer to perform a predefined modulation on a transmit signal to be sent to the position resolving grid.

66. (New) The method of Claim 65, wherein the predefine modulation comprises a time keying modulation or an on/off modulation.

67. (New) The method of Claim 59, wherein the transducer includes a low current source that is configured to provide a constant transmit signal level.

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